

5 WHAT IS CLAIMED IS:

1. A tube having a closed bottom, a cylindrical side wall and an open top, said cylindrical side wall being concentric about a longitudinal axis, an array of information disposed on said cylindrical side wall and aligned substantially parallel to said longitudinal
10 axis, an alignment key formed on said tube at a specified angular orientation relative to said array of information.

2. The tube of Claim 1, wherein said alignment key is disposed substantially adjacent
said bottom of said tube.

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3. The tube of Claim 2, wherein said bottom of said tube is substantially symmetrically tapered, said alignment key defining a non-symmetrical region at said bottom of said tube.

20 4. The tube of Claim 3, wherein the alignment key defines a fin projecting outwardly from said tapered bottom.

5. The tube of Claim 3, wherein the alignment key comprises a notch extending into
said tapered bottom.

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6. The tube of Claim 3, wherein said alignment key defines a planar surface formed on said symmetrically tapered bottom of said tube.

7. The tube of Claim 3, wherein said symmetrically tapered bottom of said tube is

5 substantially hemispherical, said alignment key consisting of a planar fin lying in a plane passing through said longitudinal axis, said fin having a bottom edge substantially tangent to said hemispherical bottom and aligned substantially orthogonal to said longitudinal axis, said fin further comprising a side edge aligned with said cylindrical side wall of said tube and extending substantially parallel to said longitudinal axis.

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8. The tube of Claim 3, wherein said symmetrically tapered bottom wall of said tube is substantially hemispherical, said alignment key consisting of a planar surface interrupting said hemispherical bottom and aligned at an acute angle to said longitudinal axis.

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9. The tube of Claim 1, wherein said array of information comprises a magnetic stripe.

10. The tube of Claim 1, wherein said array of information comprises an optically readable code.

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11. The tube of Claim 1, wherein said linear array of information is imprinted on a label, said label being secured to said cylindrical side wall of said tube.

12. The tube of Claim 11, further comprising a coating applied over said label and
25 over portions of said cylindrical side wall adjacent said label to provide a smooth exterior for said cylindrical side wall of said tube.

13. The tube of Claim 1, wherein said tube is an evacuated blood collection tube further comprising a vacuum-sealed needle-pierceable closure secured to portions of said

5 cylindrical side wall adjacent said open top.

14. A method for achieving accurate machine reading of information on a tube, said method comprising the steps of:

10 providing a tube having a closed bottom, an open top and a cylindrical side wall extending therebetween, said side wall being concentric about a longitudinal axis, said tube having an alignment key non-concentrically disposed relative to said longitudinal axis;

15 providing an array of information on said cylindrical side wall such that said array of information is substantially parallel to said longitudinal axis and such that said array of information is at a specified angular position relative to said alignment key;

collecting a sample of a biological fluid in said tube;

20 positioning said tube in a laboratory apparatus such that said alignment key engages an alignment structure on said laboratory apparatus; and

25 reading said information on said tube from a specified angular position relative to said alignment key.

15. The method of Claim 14, wherein said alignment key is a substantially planar fin lying in a plane passing through said longitudinal axis, said method comprising the step of engaging said fin in a slot formed in said laboratory apparatus.

5 16. The method of Claim 14, wherein said alignment key is a substantially planar notch extending into said evacuated blood collection tube, said laboratory apparatus comprising a planar fin, said method comprising the step of engaging said notch over said fin.

10 17. The method of Claim 14, wherein said alignment key comprises a planar surface aligned at an acute angle to said longitudinal axis, said method comprising the step of positioning said planar surface of said evacuated blood collection tube against said planar surface on said laboratory apparatus.

15 18. The method of Claim 14, wherein said array of information comprises a magnetic stripe, said step of reading said information comprising passing said evacuated blood collection tube in proximity to a magnetic reader for reading said information.

20 19. The method of Claim 14, wherein said array of information comprises a bar code, said step of reading said information comprising optically scanning said code.

20 20. The method of Claim 19, wherein said bar code is a linear bar code or a two dimensional dot matrix maxicode.